U.S.S.N.: 09/755,004 Applicant: Shuber

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method for detecting a current *Helicobacter pylori* infection, the method comprising the steps of:

detecting a *Helicobacter pylori* nucleic acid present in a patient stool sample; and identifying the patient as having a current *Helicobacter pylori* infection if the nucleic acid is present in a length of at least 175 base pairs and in an amount indicative of infection, the amount exceeding an amount indicative of an absence of current *Helicobacter pylori* infection.

2. (Currently Amended) A method for detecting a current *Helicobacter pylori* infection, the method comprising the steps of:

detecting a high-integrity *Helicobacter pylori* nucleic acid <u>having a length of at</u> <u>least 175 base pairs present in a patient stool sample;</u>

comparing an amount of high-integrity *Helicobacter pylori* nucleic acid present in the patient sample to an amount of a non-*Helicobacter pylori* nucleic acid present in the patient sample; and

identifying the patient as having a current *Helicobacter pylori* infection if the relative amount of high-integrity *Helicobacter pylori* nucleic acid and of non-*Helicobacter pylori* nucleic acid exceeds a reference amount.

- 3. (Previously Presented) The method of claim 2, wherein the non-Helicobacter pylori nucleic acid is a human nucleic acid.
- 4. (Original) The method of claim 2, wherein the non-Helicobacter pylori nucleic acid is an Escherichia coli nucleic acid.

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- 5. (Previously Presented) The method of claim 2, wherein the patient sample is selected from the group consisting of stool, sputum, pancreatic fluid, bile, lymph, blood, urine, saliva, gastric juice, and vomitus.
- 6. (Original) The method of claim 5, wherein the patient sample is stool.
- 7. (Original) The method of claim 5, wherein the patient sample is saliva.
- 8. (Previously Presented) The method of claim 1, wherein the *Helicobacter pylori* nucleic acid is a DNA.
- 9. (Previously Presented) The method of claim 1, comprising the further step of adding an ion chelator to the patient sample such that the concentration of the ion chelator is at least 150 mM.

10-16. (Cancelled)

17. (Allowed) A method for detecting a *Helicobacter pylori* infection in a patient, the method comprising the steps of:

amplifying, from a patient sample,

a first *Helicobacter pylori* nucleic acid at least 200 nucleotides in length, a second *Helicobacter pylori* nucleic acid at least 400 nucleotides in length, and

a third *Helicobacter pylori* nucleic acid at least 600 nucleotides in length; detecting the amplified first, second, and third *Helicobacter pylori* nucleic acids; and

identifying the patient as having a *Helicobacter pylori* infection if the amplified first, second, and third *Helicobacter pylori* nucleic acids are detected.

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18. (Previously Presented) A method for detecting a *Helicobacter pylori* infection in a patient, the method comprising the steps of:

detecting a human nucleic acid in a patient stool sample comprising shed cells or cellular debris; and

identifying the patient as having disease if the length of the nucleic acid is indicative of infection, wherein the length of the nucleic acid is indicative of infection if the nucleic acid comprises at least 175 base pairs.

- 19. (Currently Amended) The method of claim 1 18, wherein the <u>human nucleic acid</u> has a length is a length of 175 at least 200 nucleotides.
- 20. (Previously Presented) The method of claim 1, wherein the amount indicative of infection is a detection threshold.
- 21. 23. (Cancelled)
- 24. (Previously Presented) The method of claim 1, further comprising the step of exposing the patient stool sample to an immobilized probe that hybridizes to *Helicobacter pylori* nucleic acid nucleic acids, thereby to immobilize a *Helicobacter pylori* nucleic acid, if present in the patient sample.